

## CLAIMS

Sub  
A3

1 1. A method for printing, comprising:  
2 providing a printing system for printing a code on a product moving in  
3 a direction, the code being constructed from a plurality of pixels in a first data  
4 set indicating the positions of the pixels;  
5 generating a corrected data set indicating the position that each pixel  
6 would occupy if each pixel was moved at the velocity of the product until the  
7 pixel was printed; and  
8 printing the code according to the corrected data set.

1 2. The method of claim 1, wherein printing the corrected data set includes  
2 printing a two dimensional trace of pixels.

1 3. The method of claim 1, wherein printing the corrected includes  
2 printing a two dimensional trace of spots.

1 4. The method of claim 1, further comprising:  
2 prioritizing the order in which the pixels are printed such that the  
3 pixels are printed in a direction which is opposite to the direction which the  
4 product moves.

1 5. The method of claim 1, wherein the printing system includes  
2 a laser mounted in a housing, the housing including an optics assembly  
3 configured to focus a printing beam produced by the laser onto a product  
4 positioned adjacent the housing.

Sub  
A4

Cond  
A4

1  
2  
3  
4  
5  
6  
7

6. The method of claim 1, wherein the printing system includes  
a laser configured to produce a printing beam for printing the code on  
a product;  
a housing including a printing beam exit member through which the  
printing beam exits the housing; and  
an optics assembly within the housing, the optics assembly configured  
to focus the printing beam on a product which is adjacent to the housing.

1  
2

7. The method of claim 1, wherein the pixels are constructed from a  
plurality of spots.

1  
2  
3

8. The method of claim 1, wherein the pixels are constructed from a  
plurality of spots and the first data set indicates the positions of the spots in  
the code.

1  
2  
3  
4

9. The method of claim 1, wherein the pixels are constructed from a  
plurality of spots and the corrected data set indicates the positions that each  
spot would occupy if each spot were moved along with the product until the  
spot was printed.

Sub  
A5

1  
2  
3  
4  
5  
6  
7

10. A printing system, comprising:  
a laser for printing a code on a product moving in a direction, the code  
being constructed from a plurality of pixels in a first data set indicating the  
positions of the pixels;  
electronics for generating a corrected data set indicating the position  
that each pixel would occupy if each pixel was moved at the velocity of the  
product until the pixel was printed; and

8

Cond<sub>1</sub>  
Sub<sub>2</sub> A5

1

2

1

2

1

2

△

6

—

[illegible]

1 17. The printing system of claim 13, wherein the pixels are constructed  
2 from a plurality of spots and the first data set indicates the positions of the  
3 spots in the code.

1 18. The printing system of claim 13, wherein the pixels are constructed  
2 from a plurality of spots and the corrected data set indicates the positions that  
3 each spot would occupy if each spot was moved along with the product until  
4 the spot was printed.

1 19. A method for printing on a product, comprising:  
2 providing a printing system for printing a code on a product which is  
3 adjacent to the printing system and which is moving in a direction relative to  
4 the printing system, the code constructed from a plurality of pixels; and  
5 prioritizing the order in which the pixels are printed such that the  
6 pixels are printed in a direction which is opposite to the direction which the  
7 product moves.

1 20. The method of claim 19, wherein an aperture limits the area within  
2 which the laser is able to print and the product moves past the aperture.

1 21. The method of claim 20, wherein the pixels are prioritized such that  
2 pixels which would cross in front of the aperture earlier are given a higher  
3 priority than pixels which would cross in front of the aperture later if the  
4 pixels were already printed on the product as the product moves past the  
5 aperture.

1 22. The method of claim 19, wherein the pixels are each constructed from  
2 a plurality of spots and prioritizing the order in which the pixels are printed

23. The method of claim 19, wherein the pixels are arranged in a first data set indicating the positions of the pixels, and further comprising:  
generating a corrected data set indicating the position that each pixel would occupy if each pixel were moved along with the product until the pixel was printed.

24. The method of claim 19, wherein the pixels are arranged in a plurality of columns and prioritizing the order which the pixels are printed includes prioritizing each of the columns.

25. The method of claim 19, wherein the printing system includes a laser mounted in a housing, the housing including an optics assembly configured to focus a printing beam produced by the laser onto a product positioned adjacent to the housing.

26. The method of claim 19, wherein the printing system includes a laser configured to produce a printing beam for printing the code on a product;

a housing including a printing beam exit member through which the printing beam exits the housing; and

an optics assembly within the housing, the optics assembly configured to focus the printing beam on a product which is adjacent to the housing.

27. A printing system, comprising:

2 a laser for printing a code on a product which is adjacent to the  
3 printing system and moving in a direction relative to the printing system, the  
4 code constructed from a plurality of pixels; and

5 electronics for prioritizing the order in which the pixels are printed  
such that the pixels are printed in a direction which is opposite to the direction  
which the product moves.

1 28. The printing system of claim 27, wherein an aperture limits the area of  
2 the product on which the laser is able to print as the product moves past the  
3 printing system.

1 29. The printing system of claim 28, wherein the pixels are prioritized  
2 such that pixels which would cross in front of the aperture earlier are given a  
3 higher priority than pixels which would cross in front of the aperture later if  
4 the pixels were present on the product before being printed by the printing  
5 system.

1 30. The printing system of claim 27, wherein the pixels are each  
2 constructed from a plurality of spots and prioritizing the order in which the  
3 pixels are printed includes prioritizing the order which the spots are printed  
4 such that the spots are printed in a direction which is opposite to the direction  
5 which the product moves.

1 31. The printing system of claim 27, wherein the pixels are arranged in a  
2 first data set indicating the positions of the pixels, and further comprising:  
3 generating a corrected data set indicating the position that each pixel  
4 would occupy if each pixel were moved along with the product until the pixel  
5 was printed.

1  
2  
3  
4

Sub A9

1           36.     A printing system, comprising:  
2                     a laser for printing an alphanumeric code on a product that is adjacent  
3           to the printing system and moving in a direction relative to the printing  
4           system, the code constructed from a plurality of pixels; and  
5                     electronics for printing pixels on the product so as to form the code on  
6           the product, the pixels being printed in a two dimensional trace.